



Performance Data Sheet

AE2390Y-FZ1A

General Information

Model	AE2390Y-FZ1A	Refrigerant	R-134a
Test Condition	EN12900 ASERCOM	Performance Test Voltage	220V ~ 50HZ
Return Gas	20°C (68°F) RETURN GAS	Motor Type	CSIR

Performance Information

Evap Temp (°C)	Condensing Temperature (°C)				
		30	40	50	60
-40	Btu/h	287	197	118	26.1
	Watts (Power)	114	112	104	90.8
	Amps	1.20	1.19	1.17	1.14
	Lb/h	3.72	2.85	2.15	1.11
-35	Btu/h	431	338	254	158
	Watts (Power)	129	130	126	117
	Amps	1.22	1.22	1.21	1.19
	Lb/h	5.62	4.77	4.08	3.01
-30	Btu/h	597	492	397	288
	Watts (Power)	144	148	148	144
	Amps	1.25	1.25	1.25	1.24
	Lb/h	7.78	6.93	6.20	5.08
-25	Btu/h	795	671	556	428
	Watts (Power)	160	168	172	171
	Amps	1.28	1.29	1.31	1.30
	Lb/h	10.4	9.48	8.69	7.46
-23.3	Btu/h	872	740	617	480
	Watts (Power)	166	174	180	181
	Amps	1.29	1.31	1.33	1.33
	Lb/h	11.4	10.5	9.64	8.38
-20	Btu/h	1040	887	745	590
	Watts (Power)	177	188	196	200
	Amps	1.32	1.34	1.37	1.38
	Lb/h	13.6	12.6	11.7	10.3
-15	Btu/h	1340	1150	976	786
	Watts (Power)	194	209	221	230
	Amps	1.37	1.40	1.44	1.46
	Lb/h	17.6	16.5	15.4	13.9
-10	Btu/h	1700	1480	1260	1030
	Watts (Power)	213	231	247	261
	Amps	1.42	1.47	1.52	1.56
	Lb/h	22.5	21.2	20.0	18.3

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	3.956376E+03	1.833001E+02	1.483930E+00	4.623942E+01
C2	1.542055E+02	2.255087E+00	4.838639E-03	1.724962E+00
C3	-5.311262E+01	1.740646E+00	-5.203037E-03	-5.864248E-01
C4	2.539625E+00	9.924825E-03	5.079444E-05	3.123791E-02
C5	-1.196376E+00	4.294028E-02	2.787121E-04	-3.364202E-03
C6	4.753333E-01	2.406502E-02	3.157269E-04	1.067638E-02
C7	1.592990E-02	2.830096E-05	-5.564777E-08	2.261699E-04
C8	-1.514244E-02	1.957812E-04	2.648439E-06	-7.292683E-05
C9	-2.640139E-04	5.161939E-04	8.138165E-07	-2.293424E-05
C10	-3.639111E-03	-2.261608E-04	-2.424715E-06	-8.919601E-05

$$\text{Value} = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3$$

Te = Evaporator Temperature

Tc = Condensing Temperature



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Return Gas	20°C (68°F) RETURN GAS	Motor Type	CSIR

Performance Information

Evap Temp (°F)	Condensing Temperature (°F)							
		80	90	100	110	120	130	140
-40	Btu/h	322	265	215	171	127	79.7	26.1
	Watts	114	114	113	110	105	99.1	90.8
	Amps	1.21	1.20	1.19	1.18	1.18	1.16	1.14
	Lb/h	4.14	3.48	3.01	2.62	2.24	1.76	1.11
-35	Btu/h	401	343	293	248	203	155	101
	Watts	122	122	122	120	117	112	105
	Amps	1.22	1.21	1.20	1.20	1.19	1.18	1.17
	Lb/h	5.16	4.52	4.05	3.68	3.30	2.82	2.16
-30	Btu/h	486	426	374	326	279	229	173
	Watts	130	131	132	131	129	125	120
	Amps	1.23	1.22	1.22	1.22	1.21	1.21	1.19
	Lb/h	6.25	5.61	5.15	4.78	4.39	3.91	3.23
-25	Btu/h	578	515	459	408	358	305	245
	Watts	138	140	142	142	141	139	135
	Amps	1.24	1.24	1.24	1.24	1.24	1.23	1.22
	Lb/h	7.43	6.79	6.33	5.95	5.55	5.05	4.36
-20	Btu/h	680	612	552	496	441	383	318
	Watts	146	149	152	153	154	153	150
	Amps	1.26	1.25	1.26	1.26	1.26	1.26	1.25
	Lb/h	8.73	8.09	7.62	7.22	6.81	6.29	5.57
-15	Btu/h	793	719	653	592	531	467	396
	Watts	154	158	162	165	166	167	165
	Amps	1.27	1.27	1.28	1.29	1.29	1.29	1.29
	Lb/h	10.2	9.53	9.04	8.62	8.19	7.65	6.90
-10	Btu/h	920	839	766	697	629	558	479
	Watts	163	168	173	177	179	181	181
	Amps	1.29	1.30	1.30	1.31	1.32	1.33	1.33
	Lb/h	11.8	11.1	10.6	10.2	9.73	9.15	8.36
-5	Btu/h	1060	974	892	815	738	658	571
	Watts	171	178	183	189	193	195	197
	Amps	1.31	1.32	1.33	1.35	1.36	1.37	1.37
	Lb/h	13.6	12.9	12.4	11.9	11.4	10.8	10.0

0	Btu/h	1220	1120	1030	946	859	769	672
	Watts	180	188	194	201	206	210	213
	Amps	1.33	1.35	1.36	1.38	1.40	1.41	1.42
	Lb/h	15.7	15.0	14.4	13.9	13.4	12.7	11.8
5	Btu/h	1400	1290	1190	1090	995	894	786
	Watts	189	198	206	213	220	226	230
	Amps	1.36	1.37	1.39	1.41	1.44	1.45	1.46
	Lb/h	18.0	17.3	16.7	16.1	15.5	14.8	13.9
10	Btu/h	1610	1480	1370	1260	1150	1030	914
	Watts	199	208	217	226	234	241	247
	Amps	1.38	1.40	1.43	1.45	1.48	1.50	1.52
	Lb/h	20.7	19.9	19.2	18.6	18.0	17.2	16.2

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.751438E+03	1.336899E+02	1.688817E+00	3.795150E+01
C2	5.034752E+01	8.069729E-01	-2.430461E-05	4.639921E-01
C3	-3.174862E+01	1.640811E-01	-1.240628E-02	-5.712987E-01
C4	6.047004E-01	1.523113E-03	2.061409E-06	6.318518E-03
C5	-2.001823E-01	5.440004E-03	4.802768E-05	1.363917E-05
C6	2.080595E-01	8.317947E-03	1.328942E-04	4.889266E-03
C7	2.731465E-03	4.852703E-06	-9.541798E-09	3.878084E-05
C8	-2.596441E-03	3.357016E-05	4.541219E-07	-1.250460E-05
C9	-4.526988E-05	8.851061E-05	1.395433E-07	-3.932482E-06
C10	-6.239903E-04	-3.877929E-05	-4.157604E-07	-1.529424E-05

Value = $C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3$

Te = Evaporator Temperature

Tc = Condensing Temperature



Tecumseh

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General Information

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Test Condition	EN12900 ASERCOM	Performance Test Voltage	240V ~ 50HZ
Return Gas	20°C (68°F) RETURN GAS	Motor Type	CSIR

Performance Information

Evap Temp (°C)	Condensing Temperature (°C)				
		30	40	50	60
-40	Watts (Capacity)	84.3	57.4	25.9	
	Watts (Power)	114	111	104	90.8
	Amps	1.20	1.19	1.18	1.15
	Lb/h	2.29	1.76	1.01	0.15
-35	Watts (Capacity)	127	101	70.8	39.9
	Watts (Power)	129	129	126	117
	Amps	1.22	1.21	1.21	1.19
	Lb/h	3.39	3.01	2.42	1.73
-30	Watts (Capacity)	175	147	115	82.7
	Watts (Power)	144	148	148	144
	Amps	1.25	1.25	1.25	1.24
	Lb/h	4.56	4.27	3.78	3.22
-25	Watts (Capacity)	232	199	162	126
	Watts (Power)	160	168	172	171
	Amps	1.28	1.29	1.31	1.30
	Lb/h	5.89	5.64	5.21	4.72
-23.3	Watts (Capacity)	254	219	180	142
	Watts (Power)	166	174	180	181
	Amps	1.29	1.31	1.33	1.33
	Lb/h	6.40	6.15	5.73	5.25
-20	Watts (Capacity)	302	261	217	174
	Watts (Power)	177	188	196	200
	Amps	1.32	1.34	1.37	1.38
	Lb/h	7.49	7.23	6.81	6.33
-15	Watts (Capacity)	390	338	284	231
	Watts (Power)	194	209	221	230

	Amps	1.37	1.40	1.44	1.46
	Lb/h	9.46	9.14	8.67	8.16
-10	Watts (Capacity)	500	434	367	302
	Watts (Power)	213	231	247	261
	Amps	1.42	1.47	1.52	1.56
	Lb/h	11.9	11.5	10.9	10.3

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.05717E+03	1.82248E+02	1.51628E+00	1.92496E+01
C2	4.92590E+01	2.09444E+00	2.65395E-03	9.75930E-01
C3	-6.67082E+00	1.75333E+00	-8.36526E-03	4.73810E-02
C4	8.57134E-01	5.84763E-03	-8.14498E-06	1.88083E-02
C5	-4.42449E-01	4.63947E-02	3.27281E-04	-5.69727E-03
C6	-8.20513E-02	2.43458E-02	3.97071E-04	-2.81766E-03
C7	5.61785E-03	-2.70096E-05	-6.44788E-07	1.38586E-04
C8	-5.68086E-03	1.93914E-04	3.08991E-06	-1.02128E-04
C9	4.38343E-04	4.76747E-04	4.51997E-07	1.32331E-05
C10	6.33993E-04	-2.32349E-04	-3.06752E-06	1.87562E-05

$$\text{Value} = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3$$

Te = Evaporator Temperature

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